IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A process for detecting the resistance of a cancer cell to oxaliplatin treatment comprising:

detecting the expression of an effector or marker gene ~~for mitochondrial apoptosis in a cancer cell~~ expressing the pro-apoptotic Bax and/or Bak protein(s);

wherein reduced expression of said effector or marker gene compared to a control cell not resistant to oxaliplatin indicates ~~resistance~~ that said cancer cell is resistant to oxaliplatin.

Claim 2 (Currently Amended): The process of claim 1, wherein the cancer cell is selected from the group consisting of a cell obtained from a subject having colorectal cancer, a cancer of the ovaries, a cancer of the germinal cells, a cancer of the lung, a cancer of the digestive tract, a cancer of the prostate, a cancer of the pancreas, a cancer of the small intestine, and a cancer of the stomach.

Claim 3-4 (Cancelled)

Claim 5 (Currently Amended): The process of claim [[3]] 1, comprising detecting mRNA transcripts of said effector or marker gene for [[the]] mitochondrial apoptosis ~~gene(s)~~.

Claim 6 (Withdrawn): The process of claim 1, comprising detecting the amount and/or the activity of at least one mitochondrial apoptosis protein in the cancer cells.

Claim 7 (Withdrawn): A process for *in vitro* detection of the resistance of cancer cells to oxaliplatin treatment comprising:

detecting at least one mutation indicative of deficient mitochondrial apoptosis in the case of treatment with oxaliplatin, in particular of a mutation in a region of the Bax gene containing a series of 8 deoxyguanines.

Claim 8 (Currently Amended): The process according to claim 1 comprising:

a) determining the level of expression of said effector or marker gene for mitochondrial apoptosis~~, and/or the level of expression of at least one mitochondrial apoptosis gene,~~ in cancer cells obtained from a patient;

b) comparing the level[[(s)]] measured with the level[[(s)]] measured in a corresponding control sample of cells not resistant to oxaliplatin.

Claim 9 (Withdrawn): The process according to claim 6 comprising:

contacting an antibody that recognizes a mitochondrial apoptosis protein with a sample suspected of containing an apoptosis protein, and

detecting the formation of an antigen-antibody complex between said antibody and said apoptosis protein;

wherein a reduced level of complex formation between said antibody and said apoptosis protein compared to the level in a corresponding control cell not resistant to oxaliplatin is indicative of resistance to oxaliplatin.

Claim 10 (Currently Amended): The process of claim 1, wherein a probe or primer is used to detect the expression of said effector or marker gene for ~~at least one~~ mitochondrial apoptosis ~~gene~~.

Claim 11 (Currently Amended): The process of claim [[10]] 1 comprising:

a) isolating mitochondrial DNA from a biological sample to be examined, or obtaining a cDNA from the RNA of the biological sample or from genomic DNA; and

b) amplifying the DNA from a) using at least one primer for amplification of said effector or marker gene for [[an]] a mitochondrial apoptosis ~~gene~~.

Claim 12 (Currently Amended): The process according to claim [[10]] 1, comprising:

a) contacting a nucleotide probe for said effector or marker gene for mitochondrial apoptosis ~~an apoptosis gene~~ with a biological sample to be analyzed for a time and under conditions suitable for hybridization to occur; and

b) detecting hybridization.

Claim 13 (Withdrawn): A process for selection of compounds that inhibit the resistance of cancer cells to oxaliplatin comprising:

a) adding at least one candidate compound to the cancer cells resistant to oxaliplatin;

b) comparing the level of mitochondrial apoptosis and/or expression of at least one apoptosis gene in the presence and absence of the compound;

c) deducing the anti-resistance effect when the level of mitochondrial apoptosis is greater after addition of the compound, or when the level of expression is greater when the gene is a gene that stimulates mitochondrial apoptosis, or when the level of expression is less when the gene is a gene that inhibits mitochondrial apoptosis.

Claims 14-16 (Cancelled)

Claim 17 (Withdrawn): A composition containing:

oxaliplatin and

an agent stimulating mitochondrial apoptosis selected from the group consisting of TNF, FasL, glutamate, Herbimycin A, Paraquat, inhibitors of protein kinase such as Staurosporine, Calphostin C, derivatives of d-erythro-sphingosine, Chelerythrine chloride, inducers of MAP kinase such as Anisomycin and inducers of MPT;

wherein said product is formulated as an anti-cancer agent.

Claim 18 (Withdrawn): A composition consisting of

oxaliplatin and

at least one anti-resistance agent capable of stimulating mitochondrial apoptosis, selected from the group consisting of TNF, FasL, glutamate, Herbimycin A, Paraquat, inhibitors of protein kinase such as Staurosporine, Calphostin C, derivatives of d-erythro-sphingosine, Chelerythrine chloride, inducers of MAP kinase such as Anisomycin and inducers of MPT; and

optionally at least one pharmaceutically acceptable excipient or carrier.

Claim 19 (Withdrawn): A kit for diagnosis of resistance of a cancer to oxaliplatin comprising:

a) at least one compartment suitable to contain a probe;

b) reagents necessary for the implementation of a hybridization reaction;

c) at least one primer and the reagents necessary for a DNA amplification reaction.

Claim 20 (Withdrawn): Cell HCT116/S as registered on 16 June 2003, under number: I-3051, with the Collection Nationale de Cultures de Microorganismes (CNCM), Pasteur Institute, Paris, France.

Claim 21 (Withdrawn): A method for using cell HCT116/S according to claim 20, or of any cell derived from this cell HCT116/S, to study the correlation between the resistance of cancer cells, most preferably colorectal, to anti-cancer treatment and the expression of a mitochondrial apoptosis gene.

Claim 22 (Withdrawn): A method of using cell HCT116/S according to claim 20, or of any cell derived from this cell HCT116/S, for the visualization and identification of a mitochondrial apoptosis gene whose expression is linked to the resistance of cancer cells, most preferably colorectal, to anti-cancer treatment.

Claim 23 (Withdrawn): A method for using cell HCT116/S according to claim 20, or of any cell derived from this cell HCT116/S, for the selection of a compound capable of stimulating mitochondrial apoptosis in a cancer cell, said compound being designed to be combined with an anti-cancer agent to which said cancer cell is resistant, most preferably said anti-cancer agent to which said cancer cell is resistant being oxaliplatin and, as the case may be, said cell is a colorectal cancer cell.

Claim 24 (Currently Amended): The process of claim 1, wherein ~~effector or marker gene expresses a pro-apoptotic Bax protein,~~ said cancer cell is a colorectal cancer cell, and said detecting comprises detecting the level of expression of mRNA encoding Bax, wherein reduced expression of mRNA encoding Bax

compared to a control cell not resistant to oxaliplatin correlates with resistance of the cancer cell to oxaliplatin.

Claim 25 (Cancelled)